

**\*92714\***

November-07-12 3:07:04 PM

**\*N900040100\***

Setup Start \*NS1\*

Stop \*NS2\*

**\*12\***

**Cust Item ID:**

**\*12\***

**Customer:**

**Reference:**

Run Start \*NR1\*

Date:

Date:

Stop **\*NR2\***

D4149

0.00

**\*100\***

0.00

## Waterjet

## Memo

FLOW CNC Waterjet

Cut as per dwg D4149

Prog Rev:\_\_\_\_\_

Dwg Rev:

Deburr as required

110

QC2- Inspect parts off machine FAI/FAIB

0.00

\*110\*

0.00

QC

## Memo

## Quality Control

# Work Order ID 92714

November-07-12 3:07:04 PM

**\*92714\***

Page 2

Item ID: D4149-1 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Crosstube Lug Plate, Aft  
 Start Date: 11/07/12 Start Qty: 12.00 **\*12\*** Cust Item ID:  
 Required Date: 11/20/12 Req'd Qty: 12.00 **\*12\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 <b>*120*</b> QC Quality Control	QC8- Inspect parts - second check  Memo	0.00 0.00 12/11/20				15			
150 <b>*150*</b> Packaging Packaging	Identify as per dwg & Stock Location: <u>148</u>  Memo	0.00 0.00							12/11/21 (15)
160 <b>*160*</b> QC Quality Control	QC21- Final Inspection - Work Order Release  Memo	0.00 0.00							12/11/22 JF MF 12-11-21

# Picklist Print

November-07-12 3:07:03 PM

Page 1  
T

Work Order ID: 92714

Parent Item: D4149-1

Start Date: 11/07/12

Required Date: 11/20/12

Parent Item Name: Crosstube Lug Plate, Aft

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP Rev:A 10.06.24 new issue DD verf:EC  
IPP Rev:B 11.03.03 as per revC DD verf:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S11GA 304/316 0.125 Sheet		Purchased	No			100	sf	164.2500	0.1355	1.7115792	2	11-12-11-9	

Location

Loc Qty

Loc Code

MAT020

164.25

122521

164.25

122521

15

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	92714
<b>Description:</b> Aft Crosstube Lug Plate		<b>Part Number:</b>	D4149-1
<b>Inspection Dwg:</b> D4149 <b>Rev:</b> C		<b>Page 1 of 1</b>	

### FIRST ARTICLE INSPECTION CHECKLIST

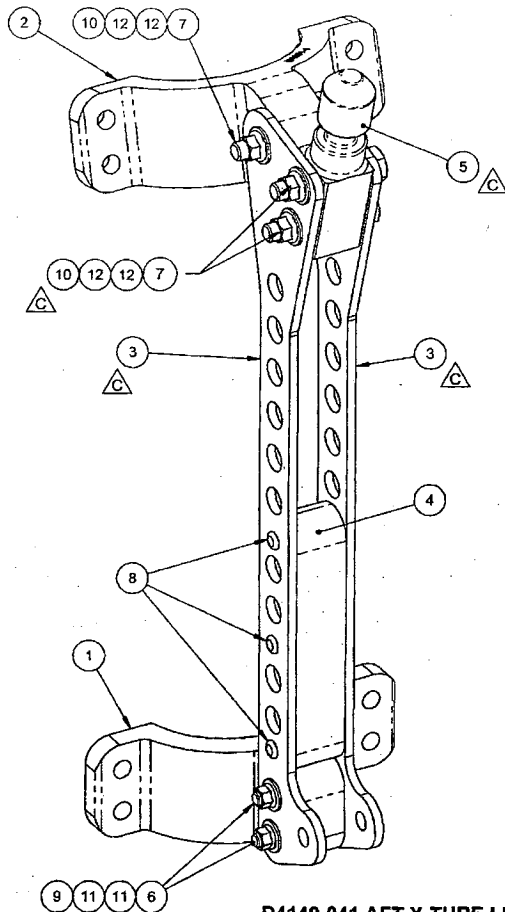
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.129	+0.005/-0.001	.133	2		V	100
Ø0.191	+0.005/-0.001	.193	2		V	
Ø0.257	+0.006/-0.001	.261	2		V	
Ø0.38	+0.006/-0.001	.381	2		V	
0.380	+/-0.010	.381	2		V	
0.469	+/-0.010	.471	2		V	
0.310	+/-0.010	.312	2		V	
0.750	+/-0.010	.758	2		V	
3.25	+/-0.030	3.252	2		V	
0.65	+/-0.030	?			V	
0.63	+/-0.030	.627	2		V	
5.46	+/-0.030	5.460	2		V	
3.80	+/-0.030	3.80	2		V	
2.13	+/-0.030	2.127	2		V	
1.313	+/-0.010	1.310	2		V	
0.625	+/-0.010	.623	2		V	
0.375	+/-0.010	.380	2		V	
1.175	+/-0.010	1.179	2		V	
0.752	+/-0.010	.750	2		V	
1.588	+/-0.010	1.590	2		V	
1.587	+/-0.010	1.589	2		V	
11.15	+/-0.030	11.15	2		PROWLER	
0.750	+/-0.010	.749	2		V	
1.55	+/-0.030	1.553	2		V	
1.12	+/-0.030	1.123	2		V	
8.42	+/-0.030	8.42	2		P	
2.70	+/-0.030	2.70	2		V	
0.125	+/-0.010	.118	2		V	
Ø0.252	+0.003/-0.000	.253	2		V	

<b>Measured by:</b>	R
<b>Date:</b>	12-11-9

<b>Audited by:</b>	DAJ 15 2-89
<b>Date:</b>	12-11-20

<b>Preliminary Approval:</b>	
<b>Date:</b>	

Rev	Date	Change	Revised by	Approved
A	10.08.04	New Issue	KJ	
B	12.02.01	Dimensions updated per Dwg Rev C	KJ	



**D4149-041 AFT X-TUBE LUG ASSY**

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4149-041" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 2.21 lbs

ITEM	QTY -041	P/N	DESCRIPTION
	X	D4149-041	AFT X-TUBE LUG ASSY
1	1	D3910-1	X-TUBE LUG
2	1	D4091-1	MOUNTING LUG
3	2	D4149-1	AFT X-TUBE LUG PLATE
4	1	D4149-3	SPACER
5	1	D4149-5	EYEBOLT STUD
6	2	AN3C12A	BOLT
7	3	AN4C13A	BOLT
8	3	MS20615-4M18	RIVET
9	2	MS21043C3	NUT
10	3	MS21043C4	NUT
11	4	NAS1149C0332R	WASHER
12	6	NAS1149C0432R	WASHER

UNCONTROLLED  
SUBJECT TO  
W. R.  
W. R.

NO. 92714 MJS  
12-11-08

RELEASED  
2011-02-26  
JW

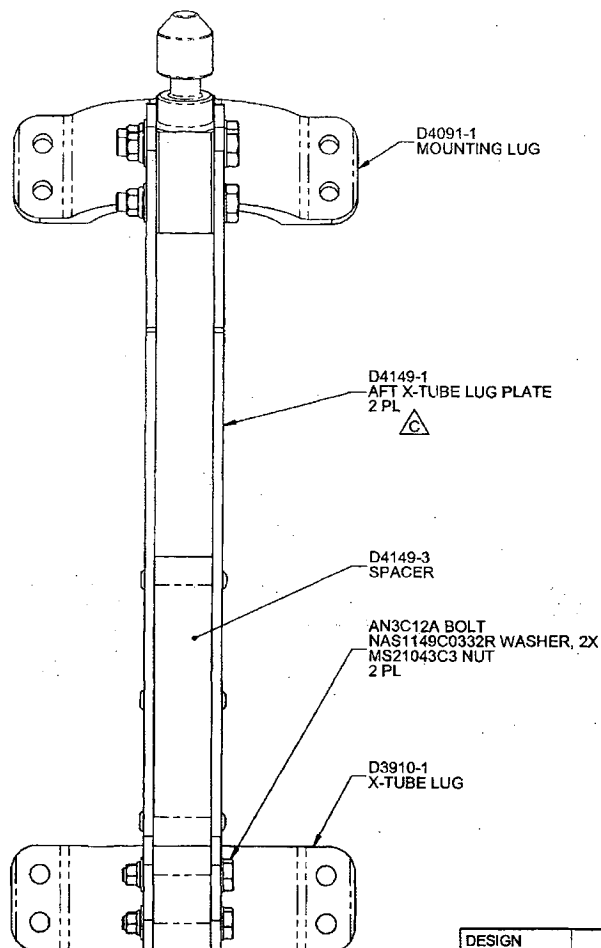
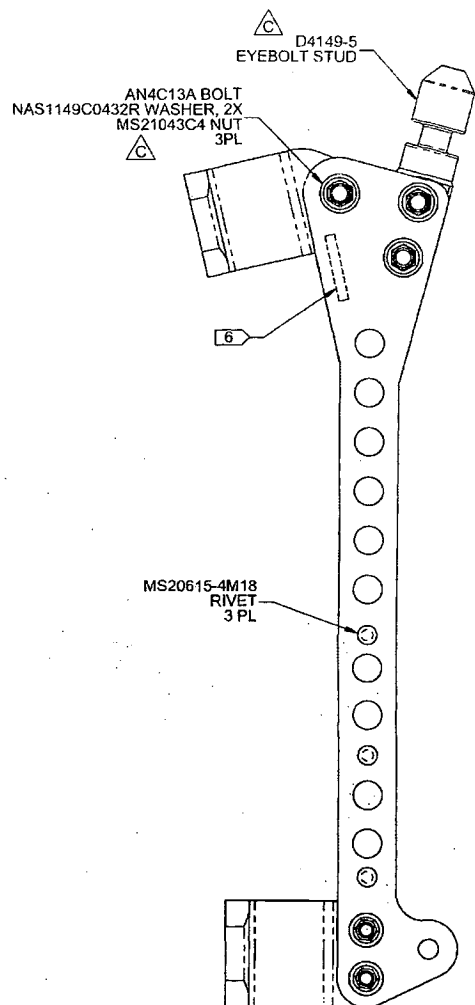
C	HOLE DIA CHANGED TO 0.252" (D8-3); HOLE DIA CHANGED TO 0.250" (C8-5); REPLACED QTY(2) AN3C12A, MS21043C3 AND QTY(4) NAS1149C0332R WITH QTY(2) AN4C13A, MS21043C4 AND QTY(4) NAS1149C0432R (D3-1, D7-2)	SC	11.02.22
B	MS20615-4M18 WAS MS20615-4M20 (ZN D3-1 & B7-2); ADDED D4149-5 (SHT 5); D4149-5 WAS D3909-5 (ZN D3-1 & D7-2); REPLACED QTY(5) MS20615-4M18 WITH QTY(2) EACH AN3C12A, MS21043-3 AND QTY(4) NAS1149C0332R WASHER (ZN D3-1, C7-1, B7-2 & B3-2); Ø0.191 2 PL REPLACES Ø0.128 3 PL (ZN D8-3); REASON: SEE TR-0350-007-2 REV. B.	MB	10.07.05
A	NEW ISSUE	MB	10.06.18
REV.	DESCRIPTION	BY	DATE
DESIGN	MB		
DRAWN	SC		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	11.02.22		

**DART AEROSPACE LTD**  
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D4149** REV. C  
SHEET 1 OF 5  
TITLE **AFT X-TUBE LUG ASSY** SCALE NTS

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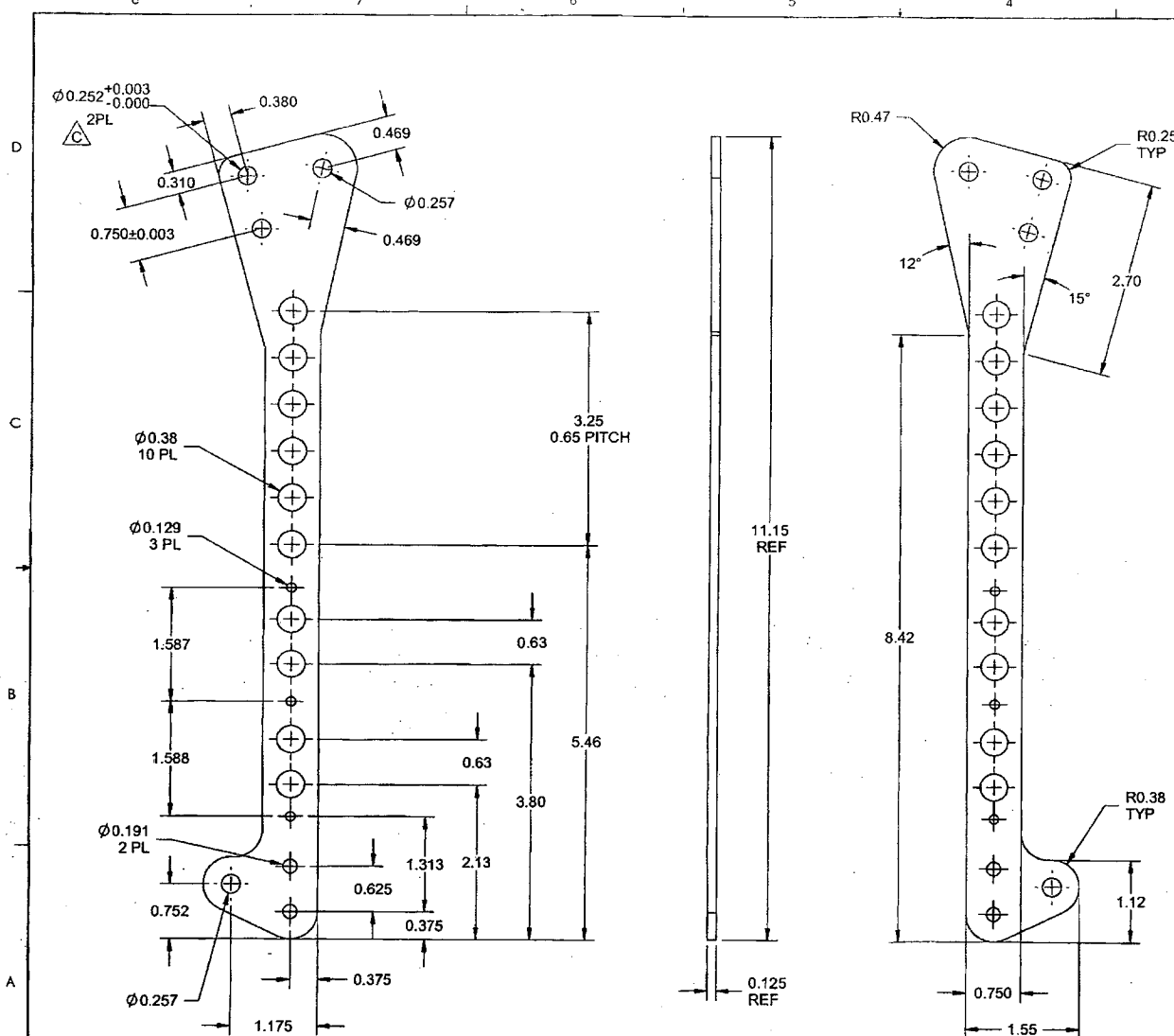


**D4149-041 AFT X-TUBE LUG ASSY**

**RELEASED**  
2011-02-24

DESIGN	MB	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	SC		
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		<b>D4149</b>	SHEET 2 OF 5
APPROVED		TITLE	SCALE
CE APPR.		<b>AFT X-TUBE LUG ASSY</b>	NTS
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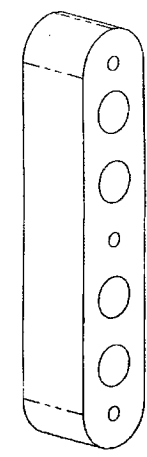
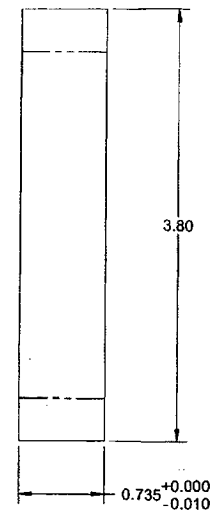
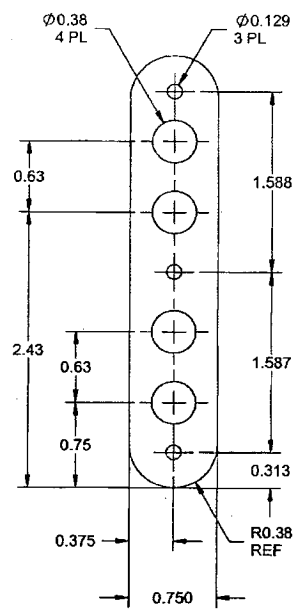
**D4149-1 AFT X-TUBE LUG PLATE**

**RELEASED**  
2011-02-24

- NOTES:**
- 1) MATERIAL: 303/304/316 STAINLESS STEEL 0.125" SHEET  
ANNEALED 2B FINISH,  
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240  
OR ASME SA240  
REF DART SPEC M304S11GA OR M303S11GA
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: NONE
  - 7) WEIGHT: 0.33 lbs

DESIGN	MB	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	SC		
CHECKED		DRAWING NO. <b>D4149</b>	REV. C
MFG. APPR.			SHEET 3 OF 5
APPROVED		TITLE <b>AFT X-TUBE LUG ASSY</b>	SCALE
DE APPR.			NTS
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92714



**D4149-3 SPACER**

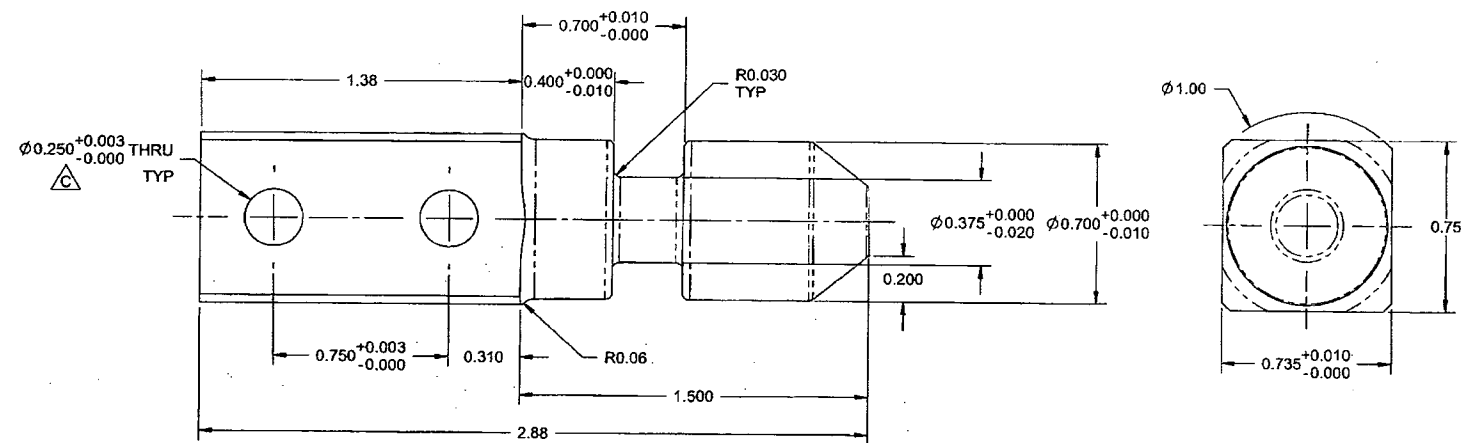
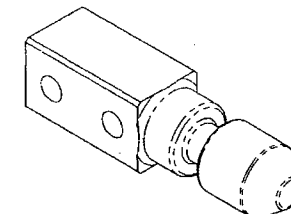
RELEASED  
2011-02-24

- NOTES:**
- 1) MATERIAL: 303/304/316 STAINLESS STEEL BAR PER ASTM A276 OR A582  
REF DART SPEC MS304B OR MS303B
  - 2) FINISH: NONE
  - 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK ALL SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: NONE
  - 7) WEIGHT: 0.47 lbs

DESIGN	MB	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
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CHECKED		DRAWING NO. <b>D4149</b>	REV. C
MFG. APPR.			SHEET 4 OF 5
APPROVED		TITLE	SCALE
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92714



**D4149-5 EYEBOLT STUD**

RELEASED  
2011-02-24

- NOTES:
- 1) MATERIAL: 303/304/316 STAINLESS STEEL BAR PER ASTM A276 OR A582  
REF DART SPEC MS304B OR MS303B
  - 2) FINISH: NONE
  - 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK ALL SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4149-5" USING FINE POINT PERMANENT INK MARKER
  - 7) WEIGHT: 0.32 lbs

DESIGN	MB	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
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CHECKED		DRAWING NO.	REV. C
MFG. APPR.		<b>D4149</b>	SHEET 5 OF 5
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